

Claim 21 has been added. Support for new Claim 21 is found at Column 3, lines 45-48; and Column 4, lines 41-64.

Claim 22 has been added. Support for new Claim 22 is found at column 5, lines 13 –32, col. 6, lines 19-21, and col. 7, lines 20-24 of the reissue application as originally filed.

Claim 23 has been added. Support for new Claim 23 is found at column 5, lines 13 –32, col. 6, lines 19-21, and col. 7, lines 4-24 of the reissue application as originally filed.

Claim 24 has been added. Support for new Claim 24 is found at column 5, lines 13 –32, col. 6, lines 19-21, and col. 7, lines 20-24 of the reissue application as originally filed.

A. Supplemental Oath

A supplemental reissue oath/declaration under 37 C.F.R. §1.175 (b) was submitted with Applicant's response dated April 7, 2003.

B. Double Patenting Rejection

Claims 1,4, and 5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 54, 56-62 of application No. 08/479,623.

Claims 1,4, and 5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8, 25, 29-39, 41, 57, 61, 66-69, 71-75, 77-86 of application No. 08/860,514.

Claims 1,4, and 5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7, 14-16, 29-33 of application No. 08/860499.

Claims 1,4, and 5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-10, 12-14, 16, 17, 19-22 of application No. 09/431542.

Applicants defer responding to the double patenting rejection until there is an indication of otherwise allowable subject matter, and will file terminal disclaimers if they believe them to be warranted.

C. 35 U.S.C. §112 Rejection

1. In the Advisory Action, the Examiner indicated that the rejection of Claims 1, 4, 5 under 35 U.S.C. § 112, first paragraph was overcome.

2. Claim 7 is rejected under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. Specifically, the Examiner argues that there is no support for mite or spider bait coupled to a solid support. Applicant respectfully traverses.

35 U.S.C. §112 requires the specification to be enabling only to a person skilled in the art to which it pertains. Furthermore, the specification “need not disclose what is well known to those skilled in the art and preferably omits that which is well known to those skilled and already available to the public.” MPEP 2164.05(a).

Applicants assert that at the time the subject application was filed, those skilled in the art knew what to use as an arachnid bait. For example, US 5,737,870, which has a PCT publication date of November 10, 2004, discusses baits, such as cereal, peanut and carobs, known in the art to be useful for trapping mites. *See*, Col. 1:19-46. Similarly, US 5,405,989 lists bait components, such as grain powders, vegetable oils, sugars and crystalline cellulose, for acaridae. *See*, Col. 11:24-31.

D. 35 U.S.C. §102(b) Rejections

1. Howell et al. 5102675

Claims 7, 12-14 are rejected under 102(b) as being anticipated by Howell et al.

Specifically, the Examiner argues that the Howell composition comprises wood chips, which are not unknown as suitable termite bait, with coniferaldehyde reversibly coupled to the oak wood chips. The Examiner further invites Applicants to show that oak is not a termite suitable bait. Applicants respectfully traverse the rejection.

An anticipation rejection requires that a single reference expressly or inherently disclose each and every element of a claim. *In re Paulsen*, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994); MPEP §2131 (citing *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). The examiner has burden of identifying where each and every element of the claimed invention is disclosed in the reference. *Ex Parte Levy*, 17 U.S.P.Q.2d 1461, 1462 (citing *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984)). Furthermore, “the examiner must provide a basis in fact and/or technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex Parte Levy*, 17 U.S.P.Q.2d at 1464 (emphasis in original); MPEP 2112 (discussing *Ex Parte Levy*).

Claim 7 recites a composition suitable for use as bait for the group of pests comprising cinnamic aldehyde or coniferyl aldehyde coupled to a solid support. In contrast, Howell discloses a method for producing oak in a divided form for producing an aged wine flavor. Howell does not expressly or inherently disclose each and every element of the pending claims. For example, Howell does not teach that aromatic aldehydes are suitable for use as bait for an insect or arachnid. Further, Howell does not teach or suggest that oak or other solid supports

coupled to aromatic aldehydes are suitable for use as a bait for an insect or arachnid. The disclosed environment teaches away from such a teaching or suggestion.

In rejecting Claims 7, 12-14 as being anticipated by Howell, the Examiner implies without any factual support that oak wood chips are suitable for use as bait for termites. Furthermore, in requesting that Applicant provide the proof that oak is not suitable for use as bait for termites the Examiner impermissibly attempts to shift his burden of proving that Howell anticipates the subject claims onto Applicant. As the Examiner has not met his burden of establishing a prima facie case that Howell expressly or inherently disclose each and every element of claims 7, 12-14, Applicant respectfully requests the withdrawal of the rejection of these claims as being anticipated by Howell.

Applicants have also added new claim 21, which recites a composition suitable for use as bait for the group of pests consisting of flies, cockroaches, and termites comprising cinnamic aldehyde coupled to a solid support.

2. Armstrong 5149715

Claims 8 and 10 are rejected under 102(b) as being anticipated by Armstrong. Specifically, the Examiner argues that Applicant's cinnamic aldehyde concentrations are disclosed by Armstrong.

An anticipation rejection requires that a single reference expressly or inherently disclose each and every element of a claim. *In re Paulsen*, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994); MPEP §2131 (citing *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). Additionally, the reference must enable and describe the claimed invention "sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." *In re Paulsen*, 31 USPQ2d at 1673. To be enabling, the reference must teach the skilled artisan how to make

and use the full scope of the claimed invention without undue experimentation. *See, Genentech Inc. v. Novo Nordisk A/S*, 42 USPQ2d 1001, 1004 (Fed. Cir. 1997).

Armstrong discloses the chemical control of fungal diseases, especially in mushroom production using cinnamon oil and cinnamic aldehyde. Armstrong, however does not teach the use of a shampoo or soap comprising cinnamic aldehyde or coniferyl aldehyde to kill at least 70% or greater of a target insect or arachnid population as recited in claim 8. There is nothing in Armstrong to suggest that Applicant's claimed composition would be effective in killing insects and arachnids.

While Applicants do not agree with the rejection of claims 8 and 10 over Armstrong, to expedite prosecution Applicants have amended claim 8 to recite a composition comprising one or more compound selected from the group consisting of cinnamic aldehyde or coniferyl aldehyde and the salt of a polyprotic acid in order to expedite allowance of this case. Because Armstrong does not disclose such a composition, Applicants respectfully request the Examiner to withdraw the rejection.

Applicants have also added new claims 19 and 20, which depend from claim 4 are recite methods of killing pests using a formulation comprising 0.01 g/l to 10 g/l of one or more of compounds selected from the group consisting of cinnamic aldehyde or coniferyl aldehyde.

3. Dorman et al. 2465854

Claims 8 and 10 are rejected under 102(b) as being anticipated by Dorman. The Examiner argues that claim 2 of Dorman discloses the use of cinnamic aldehydes with emulsifiers to kill insects and spiders.

Claim 2 of Dorman discloses an insecticidal composition comprising mineral oil, amyl cinnamic aldehyde, and an emulsifier. Dorman does not disclose a composition comprising one or more compound selected from the group consisting of cinnamic aldehyde or coniferyl

aldehyde and the salt of a polyprotic acid in a soap or detergent formulation. Accordingly, Dorman does not expressly or inherently disclose each and every element of claims 8 and 10, and Applicant respectfully requests the withdrawal of the rejection.

4. Berke et al. 4525480

Claims 8 and 10 are rejected under 102(b) as being anticipated by Berke. The Examiner argues that Berke discloses 0.067% cinnamaldehyde in a shampoo.

Berke discloses that compositions comprising cinnamaldehyde and parabens are effective in preventing the microbial spoilage of foods. Berke specifically teaches that such compositions are effective against bacteria, yeast and mold. Berke does not teach the use of cinnamic aldehyde or coniferyl aldehyde in combination with the salt of a polyprotic acid as recited in claim 8. Accordingly, Berke does not expressly or inherently disclose each and every element of claims 8 and 10, and Applicant respectfully requests the withdrawal of the rejection.

5. Saotome, FR 2529755

Claims 1, 4, 8, 10 are rejected under 102(b) as being anticipated by Saotome. The Examiner argues that Saotome discloses the use of 10% cinnamic aldehyde, propylene glycol and water to kill harmful insects.

Saotome discloses the application of an aqueous solution containing cinnamic aldehyde to protect crops from microbes and theraps and nematodes and greenhouse white flies. Saotome does not disclose the use of cinnamic aldehyde or coniferyl aldehyde to kill termites, ants, mites, or fleas as recited in Applicant's claim 1; and there is nothing in Saotome's disclosure that suggests that a composition comprising cinnamic aldehyde or coniferyl aldehyde would be effective in killing termites, ants, mites, flies, or fleas.

Furthermore, Saotome does not disclose the use of soaps or shampoos comprising cinnamic aldehyde or coniferyl aldehyde and the salt of a polyprotic acid to kill at least 70% or

greater of a target insect or arachnid population as recited in claim 8. Accordingly, Saotome does not expressly or inherently disclose each and every element of claims 1, 4, 8, and 10.

6. Sperti, 4477361

Claims 8 and 10 are rejected under 35 U.S.C. 102§(b) as being anticipated by Sperti et al. The Examiner argues that Sperti discloses 0.3% cinnamic aldehyde, and inherently if insects were present they would be killed.

Applicant has amended claim 8 to recite composition comprising one or more compound selected from the group consisting of cinnamic aldehyde or coniferyl aldehyde and the salt of a polyprotic acid, in a soap or detergent formulation. As Sperti does not disclose compositions comprising cinnamic aldehyde and the salt of a polyprotic acid, claim 8 is not anticipated by Sperti. Applicant therefore respectfully requests the withdrawal of the rejection.

CONCLUSION

Applicant respectfully submits that the above amendments and arguments fully resolve each of the Examiner's rejections. Allowance is therefore requested. If the Examiner feels there are additional outstanding issues, the Examiner is invited to call the undersigned attorney at (415) 781-1989.

Respectfully submitted,

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Dated: 6/9/03

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Filed under 37 CFR §1.34(a)

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CLEAN VERSION OF AMENDED CLAIMS

J1 1. (Four Times Amended) A method for killing a population of pests selected from the group consisting of termites, ants, mites, and fleas, said method comprising:

contacting said population of pests with an effective pest growth modulating amount of an aqueous formulation comprising 0.01 g/l to 10 g/l of one or more of compounds selected from the group consisting of cinnamic aldehyde or coniferyl aldehyde, and wherein said formulation does not contain an antioxidant other than an antioxidant according to said compounds.

J2 4. (Twice Amended) The method according to Claim 1, wherein said aqueous formulation provides for about 70% or greater kill of said pest population.

5. (Thrice Amended) The method according to Claim 1, wherein said aqueous formulation further comprises a salt of a polyprotic acid.

7. (Thrice Amended) A composition suitable for use as bait for the group of pests consisting of arachnids, flies, cockroaches, and termites comprising:

J3 one or more compound selected from the group consisting of cinnamic aldehyde or coniferyl aldehyde, wherein said composition is coupled to a solid support.

8. (Four Times Amended) A composition suitable for use as a shampoo or a soap, said composition comprising:

one or more compound selected from the group consisting of cinnamic aldehyde or coniferyl aldehyde, and further comprising the salt of a polyprotic acid, in a soap or detergent formulation, in an amount sufficient to provide a kill of about 70% or greater of a target insect or arachnid population.

J4 10. (Twice Amended) The composition according to claim 8, wherein said composition is free of antioxidants other than said compounds.

12. A composition according to Claim 7, wherein said solid support comprises cellulose.

J5 13. (Thrice Amended) A composition according to Claim 12, wherein said compound is reversibly coupled with said cellulose.

14. The composition according to Claim 12, wherein said composition is coupled to said solid support via a cellulose binding domain.

J6 16. (Thrice Amended) The composition according to Claim 7, wherein said solid support is enclosed in a housing having means of ingress and egress for said group of pests.

J7 18. (New, Once Amended) The composition according to Claim 7, wherein a chemoattractant for said group of pests is associated with said solid support.

19. (NEW) The method according to Claim 4, wherein said aqueous formulation further comprises a soap or detergent suitable for use as a shampoo or soap for a mammal.

20. (NEW) The method according to Claim 4, wherein said aqueous formulation further comprises a powder or detergent suitable for use a carpet shampoo.

21. (NEW) A composition suitable for use as bait for the group of pests consisting of flies, cockroaches, and termites comprising cinnamic aldehyde coupled to a solid support.

22. (NEW) A method for killing a population of pests selected from the group consisting of termites, ants, mites, and fleas, said method comprising:

contacting said population of pests with an effective pest growth modulating amount of an aqueous formulation comprising 0.01 g/l to 10 g/l of one or more of compounds selected from the group consisting of cinnamic aldehyde or coniferyl aldehyde, and wherein said formulation is coupled to a solid support and does not contain an antioxidant other than an antioxidant according to said compounds.

23. (NEW) A method for killing a population of pests selected from the group consisting of termites, ants, mites, and fleas, said method comprising:

applying the composition of claim 7 in an area infested with said population of pests.

24. (NEW) A composition suitable for use as bait for the group of pests consisting of arachnids, flies, cockroaches, and termites comprising:

one or more compound selected from the group consisting of cinnamic aldehyde or coniferyl aldehyde, wherein said composition is coupled to a solid support and located adjacent to an area of infestation of said pests.
